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10/666,609

IN THE CLAIMS:

No amendments are made by the present paper. The status and content of all claims follows.

1. (previously presented) A pressure sensor comprising:  
a first membrane that flexes in response to pressure;  
a reference cavity covered by said first membrane, said reference cavity containing a vacuum; and  
a second membrane adjacent to said first membrane;  
wherein said second membrane is not in contact with said vacuum; and  
wherein said first and second membranes form a capacitor having a capacitance that varies in accordance with the flexing of said first membrane and said pressure.
2. (original) The pressure sensor of claim 1, wherein said first and second membranes are made of silicon.
3. (original) The pressure sensor of claim 1, further comprising:  
an upper substrate; and  
a lower substrate;  
wherein said first and second membranes are supported between and bonded to said upper and lower substrates.
4. (original) The pressure sensor of claim 3, further comprising electrical connections patterned on one of said substrates and in electrical connection with said first and second membranes for measuring said capacitance.
5. (original) The pressure sensor of claim 1, wherein said first and second membranes are formed in a silicon substrate.

10011959-5

10/666,609

6. (original) The pressure sensor of claim 5, further comprising a polysilicon anchor on both edges of said first membrane securing said first membrane in said silicon substrate.

7. (original) The pressure sensor of claim 1, wherein said first or second membrane has a curvature.

8-45. (cancelled)

46. (previously presented) A pressure sensor comprising:  
a first means for flexing in response to pressure;  
a reference cavity covered by said first means, said reference cavity containing a vacuum;  
a second means for forming a capacitor with said first means, said capacitor having a capacitance that varies in accordance with the flexing of said first means and said pressure;  
and  
means for measuring said capacitance;  
wherein said second means is adjacent to said first means and not exposed to said vacuum within said reference cavity.

47. (original) The pressure sensor of claim 46, wherein said first and second means each comprise a membrane made of silicon.

48. (original) The pressure sensor of claim 46, wherein said means for measuring said capacitance comprise electrical connections patterned on a substrate supporting said first and second means.

49. (original) The pressure sensor of claim 46, wherein either said first or second means has a curvature.

50-52. (cancelled)

10011959-5

10/666,609

53. (previously presented) A pressure sensor comprising:  
a first membrane that flexes in response to pressure;  
a reference cavity covered by said first membrane, said reference cavity containing a vacuum; and  
a second membrane adjacent to said first membrane, said first and second membranes forming a capacitor having a capacitance that varies in accordance with the flexing of said first membrane and said pressure;  
wherein one of said membranes is formed with a curvature with respect to the other said membrane.

54. (original) The pressure sensor of claim 53, wherein said first and second membranes are made of silicon.

55-56. (cancelled)

57. (previously presented) A pressure sensor comprising:  
a first membrane that flexes in response to pressure;  
a reference cavity covered by said first membrane, said reference cavity containing a vacuum; and  
a second membrane adjacent to said first membrane;  
wherein said reference cavity and said second membrane are disposed on opposite sides of said first membrane, said first and second membranes forming a capacitor having a capacitance that varies in accordance with the flexing of said first membrane and said pressure.

58. (previously presented) The pressure sensor of claim 57, wherein said first and second membranes are made of silicon.

59. (previously presented) The pressure sensor of claim 57, further comprising:  
an upper substrate; and  
a lower substrate;

10011959-5

10/666,609

wherein said first and second membranes are supported between and bonded to said upper and lower substrates.

60. (previously presented) The pressure sensor of claim 59, further comprising electrical connections patterned on one of said substrates and in electrical connection with said first and second membranes for measuring said capacitance.

61. (previously presented) The pressure sensor of claim 57, wherein said first and second membranes are formed in a silicon substrate.

62. (previously presented) The pressure sensor of claim 61, further comprising a polysilicon anchor on both edges of said first membrane securing said first membrane in said silicon substrate.

63. (previously presented) The pressure sensor of claim 57, wherein said first or second membrane is formed with a curvature.